SANTA CRUZ BIOTECHNOLOGY, INC.

VPS33B (N-19): sc-79351

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The Power to Question

BACKGROUND

Vacuolar sorting proteins (VPSs) are required for proper trafficking of endocytic and biosynthetic proteins to the vacuole and play an important role in the budding process of cells. VPS33B (vacuolar protein sorting 33 homolog B) is a 617 amino acid protein that localizes to the cytoplasmic side of the peripheral membrane, as well as to the late endosomal membrane, and belongs to the STXBP/Sec1 family. Expressed ubiquitously with highest expression in testis and lowest expression in lung, VPS33B is thought to play a role in vesicle-mediated protein trafficking to lysosomal compartments and may also be involved in membrane docking events at late endosomes. Defects in the gene encoding VPS33B are the cause of arthrogryposis-renal dysfunction-cholestasis syndrome (ARC), an autosomal recessive disorder that is characterized by renal tubular dysfunction, neurogenic arthrogryposis multiplex congenita and neonatal cholestasis with bile duct hypoplasia.

REFERENCES

1. Carim, L., Sumoy, L., Andreu, N., Estivill, X. and Escarceller, M. 2000. Cloning, mapping and expression analysis of VPS33B, the human orthologue of rat Vps33b. Cytogenet. Cell Genet. 89: 92-95.
2. Huizing, M., Didier, A., Walenta, J., Anikster, Y., Gahl, W.A. and Krämer, H. 2001. Molecular cloning and characterization of human VPS18, VPS11, VPS16, and VPS33. Gene 264: 241-247.
3. Gissen, P., Johnson, C.A., Morgan, N.V., Stapelbroek, J.M., Forshew, T., Cooper, W.N., McKiernan, P.J., Klomp, L.W., Morris, A.A., Wraith, J.E., McClean, P., Lynch, S.A., Thompson, R.J., Lo, B., Quarrell, O.W., et al. 2004. Mutations in VPS33B, encoding a regulator of SNARE-dependent membrane fusion, cause arthrogryposis-renal dysfunction-cholestasis (ARC) syndrome. Nat. Genet. 36: 400-404.

CHROMOSOMAL LOCATION

Genetic locus: VPS33B (human) mapping to 15q26.1; Vps33b (mouse) mapping to 7 D3.

SOURCE

VPS33B (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of VPS33B of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-79351 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

VPS33B (N-19) is recommended for detection of VPS33B of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

VPS33B (N-19) is also recommended for detection of VPS33B in additional species, including canine and bovine.

Suitable for use as control antibody for VPS33B siRNA (h): sc-76905, VPS33B siRNA (m): sc-76906, VPS33B shRNA Plasmid (h): sc-76905-SH, VPS33B shRNA Plasmid (m): sc-76906-SH, VPS33B shRNA (h) Lentiviral Particles: sc-76905-V and VPS33B shRNA (m) Lentiviral Particles: sc-76906-V.

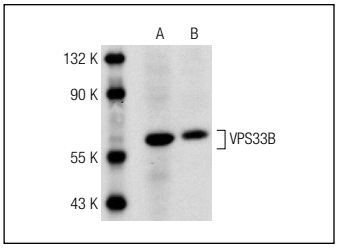
Molecular Weight of VPS33B: 71 kDa.

Positive Controls: mouse testis extract: sc-2405 or rat testis extract: sc-2400.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



VPS33B (N-19): sc-79351. Western blot analysis of VPS33B expression in mouse testis (**A**) and rat testis (**B**) tissue extracts.

RESEARCH USE

For research use only, not for use in diagnostic procedures.